

- 24 -

CLAIMS

1. A method for integrating fixed terminals in a mobile telecommunications network capable of handling calls to and from registered subscribers, comprising the steps of:
- 5 connecting the fixed terminals through fixed lines to an interface unit for the mobile network;
- providing a register for storing, for each subscriber, subscriber information by which the subscriber is addressable;
- 10 storing, as part of the subscriber information, access information specifying one or more predefined access types, that are available for that subscriber, and specifying whether or not the subscriber has multiple access to the network; and
- controlling the call handling on the basis of the stored access information.
- 15 2. The method according to claim 1, wherein the register is in the form of a database in which each access is represented by an identifier and the associated subscriber information, and the access type information includes a reference to another identifier which represents another access of the same subscriber.
- 20 3. The method according to claim 2, wherein the subscriber information for one of the identifiers belonging to the same subscriber includes service data specifying a service profile to which the subscriber is entitled, and it is specified that all the other accesses of this subscriber are entitled to the same service profile, as far as the services included in the profile are compatible with the access type.
- 25 4. The method according to claim 1, wherein call handling comprises the steps of:
- 30 a) checking, by reference to the access information, whether the access to which the call is terminated is one of a multiplicity of accesses linked together as a multiple access,
- b) retrieving address information for all the linked accesses from the register, and
- 35 c) offering the call to each one of the linked accesses.
5. The method according to claim 4, wherein the subscriber information asso-

- 25 -

ciated with identifiers referring to fixed terminals is copied from the central register into a local register, and step (a) is performed by reference to the local register.

5 6. The method according to claim 5, wherein the step (b) comprises the sub-steps of

b1) obtaining from the local register an access indicator associated with the address to which the call was directed,

10 b2) sending to the central register a query including said access indicator and a parameter indicating that there are other accesses linked to that access, and

b3) retrieving the address information associated with the linked accesses from the central register.

15 7. The method according to claim 2, wherein one of the predefined access types is an ISDN BRI type access, and this access is defined as a multiple access and is represented in the register by two identifiers.

20 8. The method according to claim 1, wherein one of the predefined access types is a point to point access having a plurality of extensions, and the access type information includes references to mobile accesses that are each linked to one of the extensions.

25 9. The method according to claim 1, wherein one of the predefined access types is a point to multipoint access for which a plurality of Multiple Subscriber Numbers are provided, and wherein the access type information includes Call Forward specifications for at least one of the Multiple Subscriber Numbers.

30 10. The method according to claim 1, wherein the step of storing the access information is followed by a step of extracting from the subscriber information a table of directory numbers under which the fixed terminals can be addressed, and wherein the call handling step comprises a step of collecting the digits of a dialed directory number and checking the sequence of digits for validity by reference to the table of directory numbers.

35 11. A telecommunications network including a mobile network and fixed lines connecting fixed terminals to the mobile network through an interface unit, the

- 26 -

- network comprising a register storing subscriber information for each subscriber to the network, wherein the subscriber information includes access information specifying one or more predefined access types, that are available for that subscriber, and specifying whether or not the subscriber has multiple access to the network.
- 5
12. The network according to claim 11, wherein the mobile network is a switched node type network and the register is a Home Location Register.
- 10
13. The network according to claim 12, wherein the interface unit is connected to one of the nodes of the mobile network and emulates, towards the side of the node, a subsystem for wireless communication with mobile terminals.
14. The network according to claim 13, wherein the mobile network is a GMS
- 15 type network.
- 15
15. The network according to claim 14, wherein the node to which the interface unit is connected is a Gateway MSC.
16. The network according to claim 15, wherein a copy of the access information is also stored in a Visitor Location Register associated with the Gateway MSC.
- 20
17. The network according to claim 11, wherein at least one of the fixed terminals is of a type having two ISDN BRI channels, this access is represented in the register by two linked subscriber identifiers, and the interface unit is arranged to dynamically change the association between the two identifiers and the two BRI-channels depending on the idle and busy states of the lines which connect the interface unit to the mobile network and to the fixed terminal.
- 25
18. The network according to claim 16, wherein at least one of the fixed terminals is of a type having two ISDN BRI channels, this access is represented in the Home Location Register by two linked subscriber identifiers, and the interface unit is arranged to dynamically change the association between the two identifiers and the two BRI-channels depending on the idle and busy states of the lines
- 30
- 35 which connect the interface unit to the Gateway MSC and to the fixed terminal.